

73049-493

4/30/2014

1/15



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

April 30, 2014

Valent BioSciences Corp.
870 Technology Way
Libertyville, IL 60048
Attn: Thomas Bade, PhD

Subject: Notification to provide clarification of the metric unit of measure found in grams on the label by incorporating its equivalency in fluid ounces as a conventional American unit, and remove ambiguity in the crop designations, consistent with PR Notice 98-10.

Product Name: **ConTego SL Plant Growth Regulator**
EPA Reg. No: **73049-493**.
Your Submission dated April 10, 2014.

Dear Mr. Bade:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticide Registration Notice (PRN) 98-10 dated above. A screen of this request has been conducted for its applicability under PRN 98-10, and it has been determined that the actions requested fall within the scope of this Notice. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

Three (3) copies of final printed labeling must be submitted to the Agency before your product as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a) (6)].

If you have any questions regarding this action, you may contact Mr. Sylvester George at (703) 603-0688 or via e-mail at george.sylvester@epa.gov.

Sincerely,

Linda A. Hollis

Linda A. Hollis, Chief
Biochemical Pesticide Branch
Biopesticides and Pollution
Prevention Division (7511P)

2/15

**ConTego™ SL
Plant Growth Regulator
Soluble Liquid**

Notification Accepted

Date: 4/30/2014

Reviewer: Sylvester O'neil

FOR USE ON VEGETABLE CROPS

Active Ingredient

| | |
|------------------------|------------|
| S-Abscisic Acid | 10.0% w/w |
| Other Ingredients..... | 90.0% w/w |
| Total..... | 100.0% w/w |

ConTego™ SL contains 10 g of S-Abscisic Acid per 100 ml of product. ConTego SL contains the active ingredient S-Abscisic acid, commonly known as S-ABA. S-ABA is a naturally occurring-plant growth regulator found in plants. Application of S-ABA controls plant growth, reduces transpiration and water use, and increases the plant's tolerance to environmental stresses (such as drought or chilling).

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See next panel for First Aid Information.

EPA Registration No. 73049-493
EPA Establishment No. 33762-IA-001

Permittee:

Valent BioSciences Corporation
870 Technology Way
Libertyville, IL 60048
1-847-968-4700

Net Contents: 68 oz. (2000 ml)

| FIRST AID | |
|--|---|
| If in Eyes | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice. |
| HOT LINE NUMBER | |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call toll-free 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-847-968-4700. | |

4/15

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls.
- Chemical resistant gloves (made of any waterproof material).
- Shoes plus socks.
- Protective eyewear.

GENERAL DIRECTIONS FOR USE

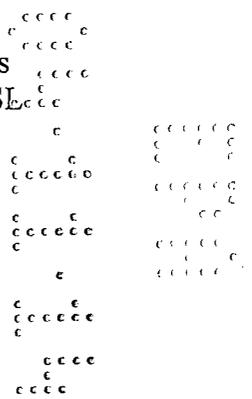
Use only as directed. Read the label thoroughly and make sure it is fully understood before making applications. Applying ConTego SL (S-ABA) significantly reduces transpiration, delays wilting, reduces water requirements and usage, slows plant metabolism resulting in protection from environmental stresses, such as drought, chilling, and transplant shock. Under stress conditions, endogenous S-ABA levels increase in plants. S-ABA in turn signals stomata to close, thus reducing water loss, controlling water usage, as well as regulating other plant physiological processes reducing metabolism in plants. Exogenous application of S-ABA causes similar results, protecting the plant from upcoming environmental stress. Undesired effects can result from deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixtures when applying ConTego SL.

Application Instructions:

- The optimum usage rate of ConTego SL varies depending on the crop, the individual user's production situation and the desired final plant height and appearance. To insure crop safety, spray a small area prior to large scale application to determine the optimum ConTego SL rate, timing and frequency under your individual production situations.

5/15

- To prepare treatment solution, mix the required amount of product with the required amount of water in a clean container or spray tank. Discard any unused treatment solution at the end of each day following local, state or federal law.
- Use calibrated commercial or research spray equipment. Apply ConTego SL in a sufficient volume of water to ensure uniform, thorough, but not excessive coverage.
- For best results apply ConTego SL under slow drying conditions, e.g., early in the morning or in the evening, avoiding high temperatures, low relative humidity, and/or windy conditions.
- Do not apply ConTego SL to plants under stress (e.g., heat, water, disease or insect stress). ConTego SL may prevent injury but does not cure existing stress damage. Injured or stressed plants will show a reduced response to ConTego SL applications.
- Do not water or overhead irrigate treated plants for at least 6 hours following application of ConTego SL to ensure adequate drying and product absorption. Do not apply when rainfall is imminent.



6/15

FACTORS AFFECTING RESPONSE TO CONTEGO SL

In addition to proper application technique, environmental and cultural factors will affect the plant's response to treatment with ConTego SL.

Different varieties or cultivars within a given plant species may require a higher or lower rate of ConTego SL to achieve the desired reduction in stress response.

Temperature and humidity are important factors in a plant's response to ConTego SL. Higher temperatures and lower humidity will cause plants to dry more quickly than low temperatures and high humidity.

Apply in the morning or evening when conditions are best for slow drying of applied material, in order to ensure adequate absorption of the product.

Overhead irrigation or rainfall within 6 hours after application will reduce product activity.

Determining Optimal Rates: Optimal ConTego SL rates will vary according to the desired reduction in stress response, growing conditions, cultural practices, application technique, and environmental conditions. Different varieties or cultivars of the same species may respond differently to ConTego SL. **Therefore, to determine response levels and/or phytotoxicity potential, treat a small number of plants (using application rates specified in Table 1) before applying ConTego SL to a large number of plants.** With increasing temperature and lower humidity consider using the higher rates within the range given in Table 1, do not to apply to plants that are already under stress.

DO NOT exceed the maximum stated rate.

Use of Adjuvants: Use a non-ionic surfactant at the final adjuvant concentration directed by the adjuvant manufacturer. Use of an adjuvant will improve wetting and coverage. Use of an adjuvant may cause yellowing of leafy green vegetables.

COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS

ConTego SL can be tank mixed with DiPel[®], BioBit[®] and XenTari[®] biological insecticides. Compatibility and performance data for ConTego SL with other agricultural products is not available.

Do not tank mix ConTego SL with compounds containing aluminum, copper or iron ions. Do not tank mix ConTego SL with any product unless compatibility had been verified. If considering tank mixing ConTego SL with other products use the following **compatibility jar test** before mixing a whole tank:

Add water from the same water source to a clear glass or plastic jar. Add the products in correct proportions. Mix thoroughly and let stand for a minimum of 15 minutes. Separation, gelling, precipitation or generation of heat are all signs of incompatibility.

7/15

Even if a mix passes the jar test for compatibility, it is imperative to test it on a designated small number of plants to evaluate for phytotoxicity and effectiveness.

Always read and follow all label directions and precautions of each product. When using combinations of products the most restrictive of label limitations and precautions must be followed. Do not mix with any product that has a prohibition against tank mixing. For further information consult your Valent agricultural specialist at 1-800-6-VALENT (1-800-682-5368).

APPLICATIONS, RATES, AND TIMINGS

For Slowing of Plant Growth Prior To Transplanting

| CROP | APPLICATION INSTRUCTIONS |
|--|--|
| <p><u>Cucurbit vegetables</u> such as cucumber, melon, ete. grown for transplanting</p> | <p>Greenhouse and covered area applications: Apply up to 1 fl oz (29 ml) of ConTego SL per gallon (up to 750 ppm S-ABA) as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray mixture per 100 square feet. This application can be made up to 24 hours prior to shipping of the transplants when slowing of plant growth is desired. Increasing the volume of spray mixture will increase efficacy. Applications may start after the plant has reached the cotyledon stage and subsequent applications may be used to reduce the growth between internodes of the plant. Multiple (up to three) applications may be used during the greenhouse growing period to obtain the desired plant height. If multiple applications are made to transplants for controlling growth, the total amount of S-ABA may not exceed that from a single maximum label rate (750 ppm) application of ConTego SL.</p> |
| <p><u>Brassica vegetables</u> such as cabbage, broccoli, ete. grown for transplanting</p> | <p>Greenhouse and covered area applications: Apply up to 1 fl oz (29 ml) of ConTego SL per gallon (up to 750 ppm S-ABA) as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made up to 24 hours prior to shipping of the transplants when slowing of the plant growth is desired. Increasing the volume of spray mixture will increase efficacy.</p> |

8/15

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| <p><u>Fruiting vegetables</u> such as tomato, pepper, etc.</p> | <p>Greenhouse and covered area applications: Apply up to 2.6 fl oz (76 ml) of ConTego SL (up to 2000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray mixture per 100 square feet. This application can be made up to 24 hours prior to shipping of the transplants when slowing of plant growth is desired. Increasing the volume of spray mixture will increase efficacy. Applications may start after the plant has reached the cotyledon stage and subsequent applications may be used to reduce the growth between internodes of the plant. Multiple (up to three) applications may be used during the greenhouse growing period to obtain the desired plant height. If multiple applications are made to transplants for controlling growth, the total amount of S-ABA may not exceed that from a single maximum label rate (2000 ppm) application of ConTego SL.</p> |
| <p><u>Leafy vegetables and herbs</u> such as celery, spinach, lettuce, beet greens and other leafy greens, fennel, basil and other herbs.</p> | <p>Greenhouse and covered area applications: Apply up to 2.6 fl oz (76 ml) of ConTego SL (up to 2000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made up to 24 hours prior to shipping of the transplants when slowing of the plant growth is desired. Increasing the volume of spray mixture will increase efficacy. Multiple (up to three) applications may be used during the greenhouse growing period to obtain the desired plant height. If multiple applications are made to transplants for controlling growth, the total amount of S-ABA may not exceed that from a single maximum label rate (2000 ppm) application of ConTego SL.</p> |
| <p>IMPORTANT: Foliar spray applications of ConTego SL may cause yellowing of the cotyledons and lower leaves in the days following application.</p> <p>Note: ConTego SL will normally reduce internode elongation for a period of 3-5 days following spray treatment, depending on crop culture, environmental conditions and plant growth habit. ConTego SL has the greatest effect on final plant height when applied during periods of rapid stem elongation. Multiple applications can be made as needed. If multiple applications are made, the total amount of S-ABA may not exceed that from a single application.</p> | |

9/15

For Reducing “Transplant Shock”, Increasing Stress Tolerance, and Enhancing Crop Establishment

| CROP | APPLICATION INSTRUCTIONS |
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| <p><u>Cucurbit vegetables</u> such as cucumber, melon, etc. grown for transplanting</p> | <p>Greenhouse and covered area applications: Apply up to 1.3 fl oz (38 ml) of ConTego SL (up to 1000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made from 24 to 72 hours prior to shipping of the transplants. Increasing the volume of spray mixture will increase efficacy.</p> |
| <p><u>Brassica vegetables</u> such as cabbage, broccoli, etc. grown for transplanting</p> | <p>Greenhouse and covered area applications: Apply up to 1.3 fl oz (38 ml) of ConTego SL (1000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made from 24 to 72 hours prior to shipping of the transplants. Increasing the volume of spray mixture will increase efficacy.</p> |
| <p><u>Fruiting vegetables</u> such as tomato, pepper, etc.</p> | <p>Greenhouse and covered area applications: Apply up to 2.6 fl oz (76 ml) of ConTego SL (2000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made from 24 to 72 hours prior to shipping of the transplants. Increasing the volume of spray mixture will increase efficacy.</p> |
| <p><u>Leafy vegetables and herbs</u> such as celery, spinach, lettuce, beet greens and other leafy greens, fennel, basil and other herbs.</p> | <p>Greenhouse and covered area applications: Apply up to 2.6 fl oz (76 ml) of ConTego SL (2000 ppm S-ABA) per gallon as a foliar spray or through sprinkler irrigation (chemigation) in 2-10 quarts of spray volume per 100 square feet. This application can be made from 24 to 72 hours prior to shipping of the transplants. Increasing the volume of spray mixture will increase efficacy.</p> |
| <p>IMPORTANT: Foliar spray applications of ConTego SL may cause yellowing of the cotyledons and lower leaves following application.</p> <p>Note: Application of ConTego SL will reduce growth rate of young plants.</p> | |

10/15

For Increasing Stress Tolerance (e.g., Drought or Chilling), Slowing Crop Growth, Improving Crop Quality, and Harvest Management

| CROP | APPLICATION INSTRUCTIONS |
|---|--|
| <p><u>Cucurbit vegetables</u> such as cucumber, melon, etc. (Field grown crops after transplanting or after seeding and emergence)</p> | <p>Field applications: Apply 100-200 g S-ABA (34-68 fl oz ConTego SL) per acre as a spray solution in a sufficient volume to achieve uniform and complete coverage of the plants. In most cases, 100-150 g S-ABA (34-51 fl oz ConTego SL) per acre per application will provide satisfactory results. In situations where greater effect is desired, use the higher S-ABA rate. Spray volumes ranging from 25-50 gallons per acre have been shown to be most effective when applied under slow drying conditions. Multiple (up to three) applications may be used to obtain the desired stress tolerance or plant height. If multiple applications are made, the total amount of S-ABA may not exceed that from a single maximum label rate (200-g) application of ConTego SL. Make first application to young plants in the field within four days (96 hours) after transplanting. Apply to field seeded crops after emergence. Reapply as needed four hours to four days (96 hours) prior to stress events such as chilling.</p> |

11/15

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| <p><u>Brassica vegetables</u> such as cabbage, etc. (Field grown crops after transplanting or after seeding and emergence)</p> | <p>Field applications: Apply 100-200 g S-ABA (34-68 fl oz ConTego SL) per acre as a spray solution in a sufficient volume to achieve uniform and complete coverage of the plants. In most cases, 100-150 g S-ABA (34-51 fl oz ConTego SL) per acre per application will provide satisfactory results. In situations where greater effect is desired, use the higher S-ABA rate. Spray volumes ranging from 25-50 gallons per acre have been shown to be most effective when applied under slow drying conditions. Multiple (up to three) applications may be used to obtain the desired stress tolerance or plant height. If multiple applications are made, the total amount of S-ABA may not exceed that from a single maximum label rate (200 g) application of ConTego SL. Make first application to young plants in the field within four days (96 hours) after transplanting. Apply to field seeded crops after emergence. Reapply as needed four hours to four days (96 hours) prior to stress events such as chilling.</p> |
| <p><u>Fruiting vegetables</u> such as tomato, pepper, etc.</p> | <p>Field applications: Apply 200-400 g S-ABA (68-139 fl oz ConTego SL) per acre as a spray solution in a sufficient volume to achieve uniform and complete coverage of the plants. In most cases, 200-300 g S-ABA (68-102 fl oz ConTego SL) per acre per application will provide satisfactory results. In situations where greater effect is desired, use the higher S-ABA rate. Spray volumes ranging from 25-50 gallons per acre have been shown to be most effective when applied under slow drying conditions. Multiple (up to three) applications may be used to obtain the desired stress tolerance or plant height. If multiple applications are made, the total amount of S-ABA may not exceed that from a single maximum label rate (400 g) application of ConTego SL. Make first application to young plants in the field within four days (96 hours) after transplanting. Apply to field seeded crops after emergence. Reapply as needed four hours to four days (96 hours) prior to stress events such as chilling.</p> |

12/15

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| <p>Leafy vegetables and herbs such as celery, spinach, lettuce, beet greens and other leafy greens, fennel, basil and other herbs.</p> | <p>Field applications: Apply up to 150 g S-ABA (51 fl oz ConTego SL) per acre as a spray solution in a sufficient volume to achieve uniform and complete coverage of the plants. In most cases, 75-100 g S-ABA (26-34 fl oz ConTego SL) per acre per application will provide satisfactory results. In situations where greater effect is desired, use the higher S-ABA rate. Spray volumes ranging from 25-50 gallons per acre have been shown to be most effective when applied under slow drying conditions. Multiple (up to two) applications may be used to obtain the desired stress tolerance or plant height; applications must be made at least 96 hours apart. If multiple applications are made, the total amount of S-ABA may not exceed that from a single maximum label rate (150 g) application of ConTego SL. Slowing of crop growth will last for a period of three to five days depending upon the crop, application rate and environmental conditions at the time of application.</p> |
| <p>IMPORTANT: Foliar spray applications of ConTego SL may cause yellowing of the cotyledons and lower leaves following application. Not recommended for use on Tatsoi and Arugula.</p> | |

| PPM S-ABA Desired | Fluid Oz. Per Gallon | Fluid Oz. Per 10 Gallons | Milliliters Per Gallon | Milliliters Per 10 Gallons |
|-------------------|----------------------|--------------------------|------------------------|----------------------------|
| 125 | 0.16 | 1.6 | 4.8 | 48 |
| 250 | 0.3 | 3.3 | 9.5 | 95 |
| 500 | 0.7 | 6.5 | 19.0 | 190 |
| 1000 | 1.3 | 13.0 | 38.0 | 380 |
| 2000 | 2.6 | 26.0 | 76.0 | 760 |

CHEMIGATION

Apply this product only through the following systems:

- 1) Spray, such as hand-held or machine-operated calibrated equipment (for field and greenhouse and covered area applications),
- 2) Overhead sprinklers, such as impact, micro-sprinklers, or booms (for greenhouse

and covered area applications only).

Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

SPRAY AND SPRINKLER IRRIGATION

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

14/15

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Fill the supply tank with the desired amount of water. Then add the amount of ConTego SL required in order to achieve the selected final use solution rate. Agitate the mixture of ConTego SL frequently during the chemigation period to assure a uniform distribution throughout the system. Apply ConTego SL continuously for the duration of the water application but do not exceed maximum rates and volumes stated in Table 1.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage

Keep container tightly closed when not in use. Store product in a cool and dry place. Avoid extended storage conditions at temperatures above 25°C (77°F). Avoid exposure of product to light or sunlight.

Pesticide Disposal

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Disposal

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after flow begins to drip. Fill container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

15/15

WARRANTY AND DISCLAIMER STATEMENT

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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